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ABSTRACT

The effects of working and attending high school simultaneously on the academic achievement of students had more absences, and the effects of absences on achievement. Subjects were 130 juniors and 110 seniors, of whom 57 percent were working during the school year. Forty-six percent were male and 54 percent were female, and 86 percent were white and 12 percent were black. A survey was designed to obtain self-report data. Grade point average (GPA) and number of absences were obtained for all students. Data was analyzed with the Statistical Package for the Social Sciences. Many students were employed, with most averaging more than 20 hours employment per 7-day period. Personal desire and social pressure encourages many students to work, and some are supplementing the family income in a sluggish economy. For juniors, there was a relationship between number of hours worked and GPA. For seniors, the number of absences, not the hours worked, was the variable associated with GPA. Most juniors were still in core courses required for graduation, but many seniors have only English as a core course, with electives. Course schedules of seniors may better reflect their interests. The belief that the more hours worked, the lower the GPA, was not supported, although there was a noticeable effect for juniors. Four tables present study data. (SLD)

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Working Status and Student Performance

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Working Status and Student Performance

An ever increasing number of high school students are working and attending high school simultaneously. The debate over the impact of student employment on school attendance and performance continues.

The purpose of this study was to address the following questions: (a) How does the number of hours worked affect academic performance? (b) Are working students absent from school more often than non-working students? and (c) How does the number of student absences influence academic performance?

Review of Literature

Barton's (1989) research involving the academic achievement of high school juniors with jobs documented varying effects. A major finding was that the grades of students' working less than 20 hours per week were no different from nonworking students. However, students working more than 20 hours per week had significantly lower grades than the students who did not work or worked less than 20 hours per week. Students who worked more than 20 hours per week generally came from families where both parents held full-time jobs. In addition, these students viewed themselves as entering the work force immediately upon graduation from high school.

Included in Barton's study (1989) was an analysis of attendance data and absenteeism. The absentee rates were similar for all students working less than 25 hours per week regardless of number of hours worked. However, for individuals working 25 hours or more each week school days missed jumped significantly. One positive aspect of part-time employment during the school year was that television viewing decreased as work hours increased.

Grade point average and participation in extra-curricular activities of working high school juniors was examined by MacArthur (1989). Working students on the whole had lower grade averages, less effective study habits, and less positive attitudes towards school. MacArthur (1989) stated that working students chose employment over academics because employment provided a means for instant gratification (i.e. immediate purchase of material goods).

McNeely (1990) studied the attitudes toward work among a group of Tennessee high school students and their parents. Both groups viewed employment as beneficial but realized that it did not improve grades or attendance. Parents felt that students should be limited to twenty hours of work per week whereas the students themselves wanted no restrictions.

Green (1990) conducted in-depth interviews with 35 seniors at a middle-class North Carolina high school. The students had various reasons for working but for the most part their attitude regarding working was positive - a contrast to the negative stereotype placed upon students who work.

Goldstein (1991) examined teachers' perceptions of working students. Eighty-eight percent of the teachers surveyed felt student employment had a negative influence on academics, completion of homework, and preparation for examinations. However, when Goldstein (1991) analyzed student grades and work hours, he found that work was not significantly related to grades although there was a trend towards lower grades as the number of hours worked increased.

Lillydahl (1990) used the National Assessment of Economic Survey to study the work factors of 3000 high school students. Again, the limited number of hours at work had minor effects on school grades. However, those who worked more than 15 to 20 hours per week had higher school absence rates, spent less time on homework, and had lower GPA's.

Likewise, Goldstein (1991) reported no significant relationships between work and absenteeism, although absenteeism tended to rise as hours worked increased. Additionally, Goldstein (1991) found that teachers lowered their expectations of working students and allowed in class time to complete assignments. Finally, there was evidence indicating a rise in alcohol and tobacco use by employed students.

Kablaoui and Pautler (1991) conducted an extensive literature review to determine the effects of part-time employment on high school students. A number of studies reviewed by Kablaoui and Pautler (1991) suggested that 15 to 20 hours of employment per week was the point at which working had a negative influence on academic achievement. The researchers also reported that the drop out rate increased as did smoking and drinking for those working students. It should be noted that stuies also indicated employed students gained in practical business knowledge as well as developed social skills.

The relationship between employment during high school and substance use, delinquency and school performance was examined by Steinberg and Dornbusch (1991). Employment during high school was linked to drug and alcohol use, delinquency, and lower school performance. In addition, negative consequences increased as the number of hours worked increased, especially when students worked at lease 15 hours per week (Steinberg & Dornbusch, 1991). A close look at school habits indicated working students sometimes resorted to cheating and copying assignments to compensate for less time spent on school work.

Subjects

One hundred and thirty-three juniors and one hundred and thirteen seniors from West Caldwell High School in Caldwell County North Carolina composed the sample. Total enrollment for the Fall and Spring semesters of the 1991-1992 academic year was 831 and 777 students, respectively.

West Caldwell is one of three consolidated high schools in the Caldwell County public school system. According to the 1990 census, Caldwell County had a population of 70,709 people. The

primary area of employment is manufacturing (i.e. furniture), followed by trade, government, and service industries. Per capita personal income for 1989 was $13,688 as compared to $15,287 for the state of North Carolina (Center for Improving Mountain Living, 1991).

The student body includes a variety of races and socioeconomic levels. During the 1991-1992 academic year the student body at West Caldwell High School was composed of 18% black, 89% white, and 1% Asian or Hispanic.

A government subsidized lunch program is available for students who qualify based on family income level and number of reported dependents. During the 1991-1992 academic year 106 students participated in the free lunch program, 43 participated in the reduced lunch program, and 4 student were denied eligibility.

Sample

The sample was composed of 240 students, 130 juniors and 110 seniors. Forty-three percent were not working during the school year and 57% were working during the school year. Forty-six percent of the responders were male and 54% were female. Eighty-eight percent of the respondents were white and 12% were black. The mean number of absences for students in the sample was 4.7 for the 1991-1992 academic year. The mean Grade Point Average (GPA) for students in the sample was 2.71 for the 1991-1992 academic year.

Data Collection

A survey was designed to obtain self-report data from junior and senior students. The survey included information on working status, place of employment, number of hours worked each week, and courses enrolled in during the Fall semester 1991 (see Appendix A).

The survey was administered during the English class periods for all juniors and seniors. Eighty-two percent of juniors and sixty-three percent of seniors at West Caldwell High School completed the survey.

The Student Information Management System (SIMS), a computerized information system used by North Carolina public schools, was used by the researchers to calculate the grade point average (GPA) and number of absences for all juniors and seniors during the Fall semester 1991.

The surveys were collected from the English teachers by the researcher. Survey data along with GPA and absences was then compiled and analyzed.

Data Analysis

Data was analyzed using the SPSS-X statistical package. First, frequencies, percentages, and means were calculated. A multiple regression analysis was run using absences and hours worked to predict GPA.

Results

Table 1 indicates the mean absences and mean GPA for the 1991-1992 school year for each of the hours worked per week categories. The table reveals no clear patterns between work and absences and work and GPA.

Insert Table 1 about here

The results of the Stepwise Multiple regression analysis is found in Table 2. The analysis revealed that number of absences

Insert Table 2 about here

was related to GPA, but hours worked per week was not. However, number of absences was significantly related to GPA. The correlation between number of absences and GPA was 0.36 which is an R-squared of 0.13. This means that only 13% of the variance in the GPA was associated with absences. Table 3 further illustrates the small correspondence between number of absences and GPA.

Insert Table 3 about here

Further analysis revealed difference between juniors and seniors. The stepwise multiple regression analysis predicting GPA from hours worked and number of absences for juniors is found in Table 4. The analysis indicated that both number of absences and hours of employment could be used to predict GPA. The multiple r was 0.397 and the r-squared was 0.157.

Insert Table 4 about here

The Stepwise Multiple regression to predict GPA from hours worked and number of absences for senior students was different than that for juniors. For both juniors and seniors number of absences could be used to predict a small portion of the GPA, however hours worked per week was not a significant predictor of a senior's GPA.

Discussion

The data resulting from this study was somewhat contradictory and inconclusive. However some conclusions can be drawn.

First, many of the high school students surveyed were employed with most of these students averaging more than 20 hours of work per 7 day period. The personal desire and social pressure to own and maintain an automobile, become more independent, purchase certain clothes, and participate in social events encourages many students to work. Additionally, the very sluggish economy which has affected the major industry in the

area may have prompted some students to work as a means of supplementing family income.

Secondly, information was gained concerning the effect of hours worked and number of absences on mean GPA. For juniors, there was a relationship between hours worked and GPA. For seniors, the data showed that the number of absences, not the number of hours worked, was the variable associated with GPA. One likely explanation of this could be the academic courses taken by the students. Most of the juniors were still enrolled in "Core" courses required for graduation, while many seniors have only English as a required core course and take electives. As a result, the course schedules of seniors may better reflect their interest which might explain this relationship, as well as the finding that juniors generally had a lower mean GPA than did seniors. The policy of exemption from examinations for perfect attendance may also have had an effect on the data. Juniors who had more challenging courses possibly were more motivated to be exempted from their examinations than seniors who predominately were enrolled in elective courses.

In summary, the results of this study were very interesting since a popular belief is that working lowers GPA. The tenet that the more hours worked, the lower the GPA and the greater the number of absences was not supported in this study. For the juniors, working did affect GPA, more than for seniors. For them, the number of absences seemed to affect GPA more than hours worked. Further research is needed to more thoroughly explore the research questions.

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Table 1

Absences and GPA by Hours Worked per Week

Hours/7 days	Mean Absences per year	Mean GPA	Frequency
25 plus	5.02	2.80	46
21-25	3.70	2.80	24
16-20	5.07	2.36	42
1-15	6.40	2.79	24
0	4.43	2.78	104

Table 2

Multiple Regression Analysis: Absenteeism Variable Entered on Step One

Multiple R	0.36019
R Square	0.12995
Adjusted R Square	0.12630
Standard Error	0.67262

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	1	16.08243	16.08243
Residual	238	107.67490	0.45242

F = 35.54792 Signif F = 0.0000

Variables in the Equation

Variable	B	SE B	Beta	T	Sig T
ABS	- 0.048356	0.008110	-0.360488	-5.962	0.0000
(Constant)	2.939799	0.057687		50.961	0.0000

Table 3

Cross-Tabulation between GPA and Absences

	GPA				
	0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	TOTAL
ABS					
0-1	1	7	35	45	88
2-5	0	12	38	15	65
6-10	2	8	41	11	62
11-15	0	6	4	4	16
16-20	1	0	1	1	3
21-33	2	3	1	0	6

Table 4

Multiple Regression Analysis: Absenteeism Variable Entered on Step One, Work Variable Entered on Step Two

Multiple R	0.39711
R Squared	0.15770
Adjusted R Square	0.14443
Standard Error	0.70419

Analysis of Variance

	DF	Sum of Squares	Mean Square
Regression	2	11.79090	5.89545
Residual	127	62.97802	0.49589

F = 11.88863 Signif F = 0.0000

Variables in the Equation

Variable	B	SE B	Beta	T	Sig T
ABS	-0.053182	0.011881	-0.364662	-4.476	0.0000
WORK	-0.064388	0.031318	-0.167496	-2.056	0.0418
(Constant)	2.968366	0.100409		29.563	0.0000